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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,068	01/16/2004	Mario Rabinowitz		1968

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EXAMINER	
TRA, TUYEN Q	

ART UNIT	PAPER NUMBER
2873	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/760,068	RABINOWITZ, MARIO	
	Examiner	Art Unit	
	Tuyen Q Tra	2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification Objections

1. The disclosure is objected to because of the following informalities:

- Page 11, line 19, "grourd" should be –ground--.

- Page 13, line 26, "electrosatic" should be –electrostatic--.

Appropriate correction is required.

Claim Objections

2. Claims 15, 17 and 24 are objected to because of the following informalities:

- Claim 24, line 1, term "capability of" should be changed to "operability for" since it has been held that the recitation that an element is "capable of" performing a function in not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense.

- Claim 15, line 3, ":" should be deleted.

- Claim 17, line 2, "." should be deleted.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "17" has been used to designate both "a fiducializing sensor" and "a plastic thin film" (see pages 13 and 18). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the

drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 and 24-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 1 recites "means for tracking the light source" which does not show any connection or relation to the rest of the device. Appropriate correction is needed. Claims 2-14 are rejected since they depend on claim 1 above.

- Claim 24-33 recites the limitation "the display" in line 7. There is insufficient antecedent basis for this limitation in the claim. Claims 25 –33 are rejected since they depend on the rejected claim 24.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4, 5, 7, 9-12, 14, 15, 18, 19 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Sheridon et al. (U.S. Pat. 5,815,306 A).

optic concentrator (item 22); a) anisotropic rotatable miniature reflectors (item 21) disposed in a surrounding medium (item 23) of an optically transmissive lubricating fluid disposed behind an optically transmissive surface (item 25); b) means (items 24a, 24b) for aligning the anisotropic rotatable miniature reflectors (21); c) means (item 27) for tracking the source (item L) of light; and d) means (item 28) for focusing the reflecting system unto the receiver(item 29) (col. 4, lines 58-68 – col.5, lines 1-39).

b) With respect to claims 4, 5, 18 and 19, Sheridon et al. further wherein the micro-optics concentrator is adjacent to the ground; wherein the micro-optics concentrator is in modular form discloses (Fig. 2).

c) With respect to claims 7, 9-11 and 21-23, Sheridon et al. further wherein means (items 24a, 24b) for aligning the anisotropic rotatable miniature reflectors (21) is electric field wand; wherein said optically transmissive surface is covered by at least one removable plastic film; wherein a plurality of micro-optics solar concentrators are disposed in different angular orientations; wherein a plurality of micro-optics solar concentrators and receivers are each disposed in different angular orientations comprising at least one pair of concentrators and receivers in substantially parallel alignment.

d) With respect to claims12 and 14, Sheridon et al. further wherein a plurality of sensors are dispersed on the surface of said sensor-optics solar concentrator to sense solar beam mis-stearing; wherein at least one pair of concentrators and receivers are placed under a transparent cover.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 2, 3, 8, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheridon et al. (U.S. Pat. 5,815,306 A) as applied to claim 1 above.

a) With respect to claims 2, 3, 16 and 17, Sheridon et al. discloses an eggcrate substrate for a twisting ball display and method thereof in Figure 2 comprising of a receiver (item 29), a micro-optic concentrator (item 22); a) anisotropic rotatable miniature reflectors (item 21) disposed in a surrounding medium (item 23) of an optically transmissive lubricating fluid disposed behind an optically transmissive surface (item 25); b) means (items 24a, 24b) for aligning the anisotropic rotatable miniature reflectors (21); c) means (item 27) for tracking the source (item L) of light; and d) means (item 28) for focusing the reflecting system unto the receiver(item 29) (col. 4, lines 58-68 – col.5, lines 1-39). Sheridon et al. does not disclose at least one rod acts as a conduit to carry electrical wires to and from said receiver. However, having one rod as a conduit to carry electrical wire to and from the receiver is considered to be obvious to one since the rod is for support the receiver while the electrical wire running thru. Therefore, it would have been obvious at the time the invention was made to a person having skill in the art to add a rod to the solar concentrator for purpose of supporting the receiver.

b) With respect to claim 8, Sheridon et al. discloses an eggcrate substrate for a twisting ball display in Figure 2 comprising of a receiver (item 29), a micro-optic concentrator (item 22); a)

anisotropic rotatable miniature reflectors (item 21) disposed in a surrounding medium (item 23) of an optically transmissive lubricating fluid disposed behind an optically transmissive surface (item 25); b) means (items 24a, 24b) for aligning the anisotropic rotatable miniature reflectors (21) is an electric field wand. Sheridon et al. does not teach that means for aligning is magnetic field wand.

Since both electric field and magnetic field wands function as an aligning means for anisotropic, the selection of magnetic field wand in place of electric field wand is seem as design experience upon the environment of use to ensure optimum performance. Therefore, it would have been obvious at the time the invention was made to a person having skill in the art to replace the electric field wand in optical system with magnetic field wand for matter of reducing structure size.

9. Claims 6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheridon et al. (U.S. Pat. 5,815,306 A), as applied to claim 1 above, in view of O'Neill et al. (U.S. Pat. 5,498,297A)

Sheridon et al. discloses an eggcrate substrate for a twisting ball display in Figure 2 comprising of a receiver (item 29), a micro-optic concentrator (item 22); a) anisotropic rotatable miniature reflectors (item 21) disposed in a surrounding medium (item 23) of an optically transmissive lubricating fluid disposed behind an optically transmissive surface (item 25); b) means (items 24a, 24b) for aligning the anisotropic rotatable miniature reflectors (21); c) means (item 27) for tracking the source (item L) of light; and d) means (item 28) for focusing the reflecting system unto the receiver(item 29) (col. 4, lines 58-68 – col.5, lines 1-39).

However, Sheridon et al. does not disclose wherein the receiver has fins for enhanced convective cooling. Within the same field of endeavor, O'Neill et al. teaches a photovoltaic receiver in Fig. 1 comprising of a solar receiver having fins (item 10) for enhanced convective cooling.

It would have been obvious, therefore, at the time the invention was made to a person having skill in the art to construct an eggcrate substrate for a twisting ball display with the solar receiver such as disclosed by Sheridon et al., and with fins for enhanced convective cooling such as discloses by O'Neill et al., for purpose of sinking heating and cooling down receiver.

Allowable Subject Matter

10. Claim 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The reason for the indication of allowable subject matter is that wherein a plurality of sensors dispersed on the surface of said micro-optics solar concentrator to sense solar beam mis-stearing are connected to a circuit for fail-safe defocusing of the solar beam disclosed in the claims is not found in the prior art.

11. Claim 24 appears to be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph and claim objection, set forth in this office action.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Sasaoka et al. (U.S. 6,730,840B2) discloses a concentrating photovoltaic module and concentrating photovoltaic power generating system in Figure 1B comprising of a receiver (204), a micro-optic concentrator (701); means for tracking the source of light; and lens for focusing the reflecting system unto the receiver (204), fins (209) for cooling the receiver (204), rod (703) function to support receiver (204).

b) O'Hara-Smith et al. (U.S. 6,227,673 B1) disclose an adjustable reflector in Figure 3 comprising of an adjustable reflector concentrator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyen Tra whose telephone number is (571) 272-2343. The examiner can normally be reached on Monday to Thursday from 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps, can be reached on (571) 272 - 2328. The fax number for this Group is (703) 872-9306.

tt

September 14, 2004

Hung Xuan Dang
Primary Examiner